

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(EMT, PARAMEDIC, MICN)
REFERENCE NO. 521

SUBJECT: **STROKE PATIENT DESTINATION**

PURPOSE: To provide guidelines for transporting suspected stroke patients to the most accessible facility appropriate to their needs.

AUTHORITY: Health & Safety Code, Division 2.5, Section 1798

DEFINITIONS:

Primary Stroke Center (PSC): A 9-1-1 receiving hospital that has met the standards of a Center for Medicaid & Medicare Services (CMS) approved accreditation body as a Primary Stroke Center and has been approved as a Stroke Center by the Los Angeles (LA) County Emergency Medical Services (EMS) Agency.

Comprehensive Stroke Center (CSC): A 9-1-1 receiving hospital that has met the standards of a CMS approved accreditation body as a Comprehensive Stroke Center and has been approved as a Comprehensive Stroke Center by the LA County EMS Agency. CSCs have subspecialty neurology and neurosurgical physicians available 24 hours a day and 7 days a week who can perform clot-removing procedures.

Local Neurological Signs: Signs and symptoms that may indicate a dysfunction in the nervous system such as a stroke or mass lesion. These signs include: speech and language disturbances, altered level of consciousness, unilateral weakness, unilateral numbness, new onset seizures, dizziness, and visual disturbances.

Modified Los Angeles Prehospital Stroke Screen (mLAPSS): A screening tool utilized by prehospital care providers to assist in identifying patients who may be having a stroke.

Los Angeles Motor Score (LAMS): A scoring tool utilized by prehospital care providers to determine the severity of stroke on patients who meet mLAPSS criteria. A large vessel involvement is suspected if the total LAMS score from the three categories is 4 or greater.

PRINCIPLES:

1. Patients experiencing a stroke should be transported to the most accessible facility appropriate to their needs. This determination will be made by the base hospital physician or Mobile Intensive Care Nurse after consideration of the guidelines established in this policy. Final authority for patient destination rests with the base hospital handling the call or SFTP provider functioning under protocols.
2. Basic Life Support units shall call an Advanced Life Support unit for suspected stroke patients as outlined in Reference No. 808, Base Hospital Contact and Transport Criteria-Section I.
3. In all cases, the health and well-being of the patient is the overriding consideration in determining patient destination. Factors to be considered

EFFECTIVE: 04-01-09
REVISED: 07-01-16
SUPERSEDES: 01-01-16

PAGE 1 OF 4

APPROVED:


Director, EMS Agency


Medical Director, EMS Agency

include: severity and stability of the patient's condition; anticipation of transport time; available transport resources; and request by the patient, family, guardian or physician.

4. Service area rules and/or considerations do not apply to suspected stroke patients.

POLICY:**I. Responsibility of the Provider Agency**

- A. Perform mLAPSS on all patients exhibiting local neurological signs. The mLAPSS is positive if all of the following criteria are met:
 1. Symptom duration less than 6 hours
 2. No history of seizures or epilepsy
 3. Age 40 years or older
 4. At baseline, patient is not wheelchair bound or bedridden
 5. Blood glucose between 60 and 400 mg/dL
 6. Obvious asymmetry-unilateral weakness with any of the following motor exams:
 - a. Facial Smile/Grimace
 - b. Grip
 - c. Arm Strength
- B. If mLAPSS is positive, calculate LAMS from the mLAPSS motor items:
 1. Facial droop Total Possible Score = 1
 - a. Absent = 0
 - b. Present = 1
 2. Arm drift Total Possible Score = 2
 - a. Absent = 0
 - b. Drifts down = 1
 - c. Falls rapidly = 2
 3. Grip strength Total Possible Score = 2
 - a. Normal = 0
 - b. Weak grip = 1
 - c. No grip = 2
- C. Transport the patient to the most appropriate stroke center in accordance with base hospital direction or section IV of this policy.

SFTP providers are responsible for assuring the receiving stroke center is notified of the patient's pending arrival and contacting the base hospital to provide minimal patient information, including the results of the mLAPSS, LAMS, last known well date and time, and patient destination. Base contact may be performed after the transfer of care if the receiving stroke center is not the base hospital.

- D. Document the results of mLAPSS, LAMS, and last known well date and time in the designated areas on the EMS Report Form or electronic patient care record (ePCR).
- E. In order to ensure that proper consent for treatment can be obtained by hospital personnel, if possible, document the name and contact information of the family member, caregiver, or witness who can help verify the patient's last known well time in the Comments area of the EMS Report Form or ePCR. When practical, transport the witness with the patient.

II. Responsibility of the Base Hospital

- A. Provide medical direction and destination for all patients who meet mLAPSS criteria or have symptoms strongly suggestive of a stroke.
- B. Determine patient destination based on stroke center status via the ReddiNet® system and section IV of this policy.
- C. Notify the receiving stroke center if the base hospital is not the patient's destination.
- D. Document the results of mLAPSS, LAMS and last known well date and time in the designated areas on the Base Hospital Form.
- E. Prompt prehospital care personnel to obtain and document witness contact information on the EMS Report Form or ePCR.

III. Responsibility of the Stroke Center

- A. Maintain current certification as a Primary Stroke Center or Comprehensive Stroke Center by a CMS approved accreditation body for stroke certification, and comply with EMS Agency data collection and quality improvement requirements.
- B. Provide specialized stroke patient care services 24 hours a day and 7 days a week.
- C. Stroke centers may request diversion of suspected stroke patients for any of the following conditions:
 - 1. Internal Disaster
 - 2. Computerized Tomography (CT) Scanner - hospital is unable to provide essential diagnostic procedures due to lack of a functioning CT scanner

IV. Destination of Stroke Patients

All patients who have a positive mLAPSS shall be transported to a LA County EMS Agency designated stroke center as follows:

- A. Transport to the PSC:
 - 1. Patients with a LAMS of less than 4
 - 2. Patients with a history of previous stroke with persistent deficits

These patients shall be transported to the most accessible PSC. Diversion may occur when the most accessible PSC has requested diversion due to internal disaster, a non-functioning CT-scan or patient request and ground transport time to the more distant PSC is 30 minutes or less.

- B. Patients with suspected acute onset stroke symptoms and a LAMS of 4 or greater, should be transported to the most accessible CSC if ground transport time is less than 30 minutes. If ground transport time to the CSC is greater than 30 minutes, the patient shall be transported to the most accessible PSC.
- C. If there are no stroke centers (PSC or CSC) that are accessible by ground transport within the maximum allowable time of 30 minutes, the patient shall be transported to the most accessible receiving facility.

CROSS REFERENCES:**Prehospital Care Manual:**

Ref. No. 501, **Hospital Directory**
Ref. No. 502, **Patient Destination**
Ref. No. 503, **Guidelines for Hospitals Requesting Diversion of ALS Units**
Ref. No. 808, **Base Hospital Contact and Transport Criteria**
Ref. No. 1200, **Treatment Protocols**
Ref. No. 1251, **Stroke/Acute Neurological Deficits**